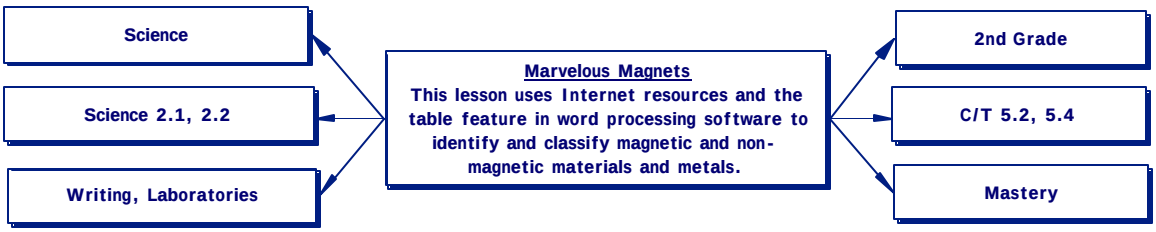

Marvelous Magnets

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Curriculum Area	Science
Subject Area	Force, Motion and Energy
Grade Level	2nd grade
Learning Objectives	• The student will be able to identify magnetic and non-magnetic materials and metals. • The student will be able to create a data table. • The student will be able to classify items by at least two criteria (magnetic, non-magnetic, metal, non-metal, iron, non-iron) • The student will be able to use real world sources to gather data ..
Correlation to the SOL	Science 2.1, 2.2 C/T 5.2, 5.4
Video/Technology Hardware/Software Needed	**For class:** Multimedia Computer with Internet connections and printer Computer Projector System Word Processing software (such as *Microsoft Word* or *Clarisworks*)
Materials Required	**For each team of students:** Magnets Small items to test- paper clips, aluminum foil, marbles, rubber bands, paper fasteners, stones, chalk, plastic and metal buttons, nails, bottle caps, etc. **Other:** Teacher-created list of e-mail addresses for local community members and parents with a variety of occupations (such as farmer, accountant, secretary, pilot, lab scientist, doctor, recycler, etc.)
Procedures/Activities	1. Introduce the topic by exploring familiar uses of magnets (refrigerators, magnetic letters). 2. Teach the students to make a table using their word processor. The table should have four columns for Object, Material (what it's made of), Prediction (magnetic, non-magnetic), and Result (magnetic, non-magnetic). If a limited number of computers are available, pre-make and copy a table so the students can record their data with a pencil as they do the experiments. They can then make their own tables individually as they later put the data into the computer.

	3. Divide the students into teams of two (a tester and a recorder). 4. Have the students make and record predictions about their experimental materials. Conduct the experiments, then record the results on the tables they made in the computer. Print out and share the results--did each team get the same results? Formulate and discuss conclusions. 5. Have the students use e-mail to collect data about real-world use of magnets, asking: How are magnets used in your job? Each student or team can send questions to gather information about a particular career. Share and discuss results.
Content Assessment	Short quiz on properties of magnets; observations of data tables
Technology Integration Assessment	Observation of students work on their tables.
Extensions	**Art:** Students can use a digital camera to take pictures of each other, shrink the pictures to a small square, print and paste onto pieces of magnet. **Language Arts:** Students can write a report for the school newspaper about their experiment and their communication with professionals about real-life use of magnets. **Drama:** Students can demonstrate, act out, or pantomime how the different occupations use magnets, based on the information they receive back from their e-mail inquiries. If the students make or use simple props or costumes to act out their magnetic careers, take pictures of them and print the pictures onto decal paper. Post the decals in your classroom window!